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NOTES AND DESCRIPTIONS OF EUPTYCHIINI (LEPIDOPTERA: SATYRIDAE) FROM THE MEXICAN REGION

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ABSTRACT. Several species of Euptychiini (Lepidoptera: Satyridae) are discussed and/or described. Described as new: *Taygetis mermeria griseomarginata* (Guerrero, Mexico), *Splendeuptychia kendalli* (Tamaulipas, Mexico), and *Cyllopsis wellingi* (Cayo dist., British Honduras). The previously unknown female of *Cyllopsis dospassosi* L. Miller is described and figured.

Some years ago Mr. Roy O. Kendall of San Antonio, Texas sent me a strange euptychiine satyrid from northern Mexico for identification. It was apparent that the specimen was a representative of a new species in the genus *Splendeuptychia* Forster (1964), a group hitherto known from no further north than Panama. Since the Panamanian species, *S. salvini* (Butler), was unrepresented in the Allyn Museum collection, I compared the Mexican insect with the colored figures of *salvini* given by Butler (1866) and by Godman and Salvin (1880 [1879–1901]). Many discrepancies between the two insects became obvious, and a hurried call to Mr. Gordon B. Small, Jr. of Balboa, Canal Zone resulted in his sending two males of *S. salvini* that confirmed the superficial differences between it and the Mexican butterfly as well as genitalic ones.

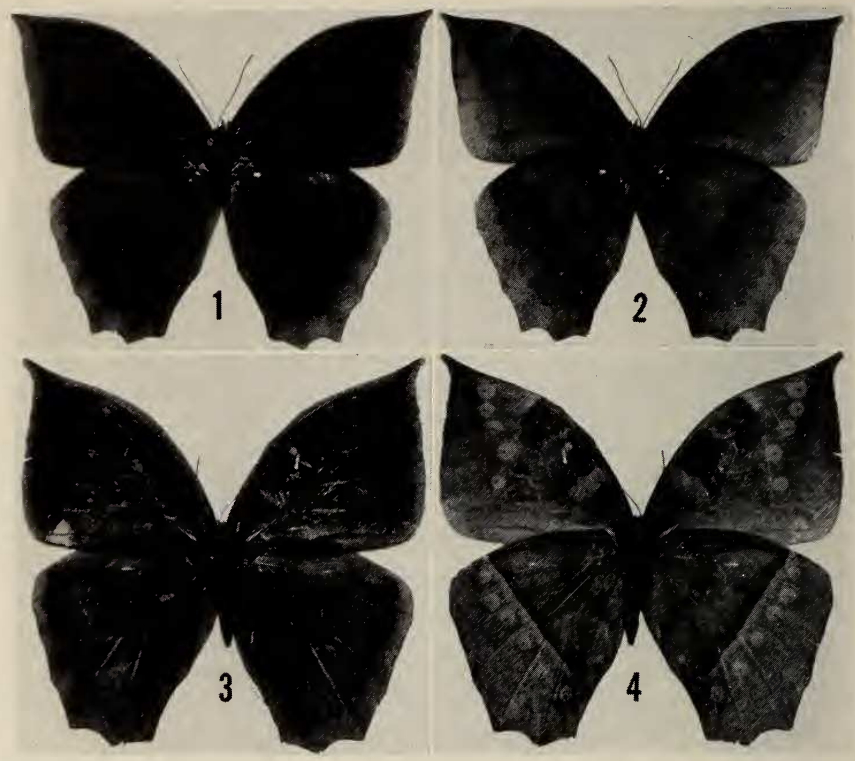
Once Mr. Kendall and his wife had managed to rear the Mexican *Splendeuptychia* they needed a name on which to base the paper that follows. Accordingly, I am taking this opportunity to describe the new *Splendeuptychia* and some other euptychiines from the Mexican region. Additional data are given on species that have come to my attention since the publication of portions of my revision of the tribe. Some of the new species described herein are members of genera not covered in the revision yet, but it is felt that publication of these parts may be so far in the future that other workers could benefit by having the names proposed at this time.

Taygetis mermeria griseomarginata L. Miller, **new subspecies**

Figs. 1–5

Male: Head, thorax and abdomen clothed with dark brown dorsal and tan to reddish-tan ventral hairs. Palpi reddish-tan, somewhat darker laterad. Antennae dark brown dorsad, reddish-brown checkered with tan ventrad. Legs clothed with brown hairs laterad, reddish-tan ones on inner portions of segments.

Wings with acutely falcate forewing apices as in *T. mermeria excavata* Butler (1868). Upper surfaces of wings dark, rich brown, unmarked except for broad (4–8 mm) grayish overscaling along margins of all wings and more narrowly and



Figs. 1–5. *Taygetis mermeria griscomarginata*, n. ssp. 1–2, Holotype ♂ upper (1) and under (2) surfaces; MEXICO: GUERRERO: Acahuizotla (Allyn Mus. photos 101476–7/8); LFW (length of forewing) 47.0 mm. 3–4, Paratype ♀ upper (3) and under (4) surfaces; MEXICO: COLIMA: Comala (Allyn Mus. photos 101476–9/10); LFW 55.2 mm. 5, ♂ genitalia of Holotype; slide M-2732 (Lee D. Miller).

less prominently along forewing costa. Under surfaces of all wings mottled in various shades of brown, reddish-brown grayish-tan or ochreous (highly variable individually) with forewing mesial bands poorly developed and only the extradiscal bands of the hindwings well developed (usually delimited by some gray-green scaling distad of the dark brown bands themselves); ocelli of both wings varying from very well developed to obsolescent. Fringes of all wings gray above, tan to reddish-brown below.

♂ genitalia similar to those of other Mexican specimens (*excavata*) with somewhat stubbier valvae than those of South American representatives.

Length of forewing of Holotype ♂ 47.0 mm, those of the 21 ♂ Paratypes ranging from 44.6 to 53.3 mm, averaging 50.35 mm.

Female: Similar in appearance to the ♂, differing chiefly in the paler coloration both dorsally and ventrally and by the presence of a poorly defined transcellular band of the hindwings beneath that is not shown by the ♂.

Lengths of the forewings of the seven ♀ Paratypes range from 54.1 to 58.0 mm, averaging 55.95 mm.

Described from 29 specimens, 22 males and seven females, from the western slope of the Sierra Madre Occidental, Mexico.

Holotype ♂: Mexico: Guerrero: Acahuizotla, ix.1957 (T. Escalante); ♂ genitalia slide M-2732 (Lee D. Miller).

Paratypes: all Mexico. Guerrero: same locality as Holotype, 1♂ viii.1957, 5♂ ix.1957, 1♂ x.1957, 1♀ viii.1958, 1♀ iii.1958 (all T. Escalante); Tierra Colorado, 12♂ 4♀ viii–ix.1971 (all A. Diaz Frances). Nayarit: vic. Compostela, 1♂ 1.x.1932 (A. B. Klots). Colima: Colima, 1♂ 11.i.1968; Comala, 1♂ 31.x.1967, 1♀ 14.i.1968 (all R. Wind).

Disposition of type-series: Holotype ♂, 17♂ and seven ♀ Paratypes in Allyn Museum of Entomology; single ♂ Paratypes will be placed in the American Museum of Natural History, the National Museum of Natural History, Carnegie Museum and the British Museum (Natural History).

The name of this subspecies refers to the broadly gray dusted margins of both wings on the upper surfaces. This situation is only hinted at in specimens of *T. m. excavata* in which the maximum development of this marginal gray scaling is about 1–1.5 mm on the forewing and virtually absent on the hindwing. In the present subspecies this gray marginal scaling is most prominent on the hindwing, but the forewing scaling is more extensive than on any *excavata* specimen.

This gray-margined subspecies is apparently restricted to the western slopes of the Sierra Madre Occidental from at least Nayarit to Guerrero. While I have not seen material from all of the states in this area, I feel confident that *griseomarginata* will be found in Jalisco, Michoacan and possibly southernmost Sinaloa. A single specimen in the Allyn Museum collection from Chiapas (Tuxtla Gutierrez, 13.viii.1961, *leg.* "M. S.") that was part of the Jae collection is referable to *griseomarginata*, but since all material from Oaxaca and Chiapas that I have seen has been referable to only *excavata*, I have excluded this Chiapas specimen from the type-series. It may have been mislabelled, or it may represent a genetic "throwback", but it certainly is not typical of Chiapas-Oaxaca before me. All of the specimens I have seen from the Nayarit to Guerrero

range have been referable to *griseomarginata*, and the presence of a single specimen from outside this range should not be taken as "proof" that the subspecies does not exist.

Splendeuptychia salvini (Butler), 1866

Figs. 6–8

Euptychia salvini Butler, 1866: 498 (type locality: Lion Hill, [Canal Zone], "Panama").

Forster (1964: 128 ff.) erected the genus *Splendeuptychia* for 23 Neotropical species, most of which are restricted to South America. The species included in the present genus are among the loveliest of the Euptychiini, and their pattern is unmistakable. Only *S. salvini* has thus far been reported from Central America, and it is restricted to the Canal Zone and adjacent Panama, possibly as far south as the Darién. *S. salvini* seems to be a rare butterfly, at least in collections. I suspect that this appearance of rarity is real, since the insect is one of the more spectacular Satyridae and should not be overlooked by even a casual collector.

Two males were obtained from Gordon B. Small, Jr. for examination and comparison with the Mexican species described below. The differences are cited under the new species, but it suffices to say here that the two are not conspecific.

Splendeuptychia kendalli L. Miller, **new species**

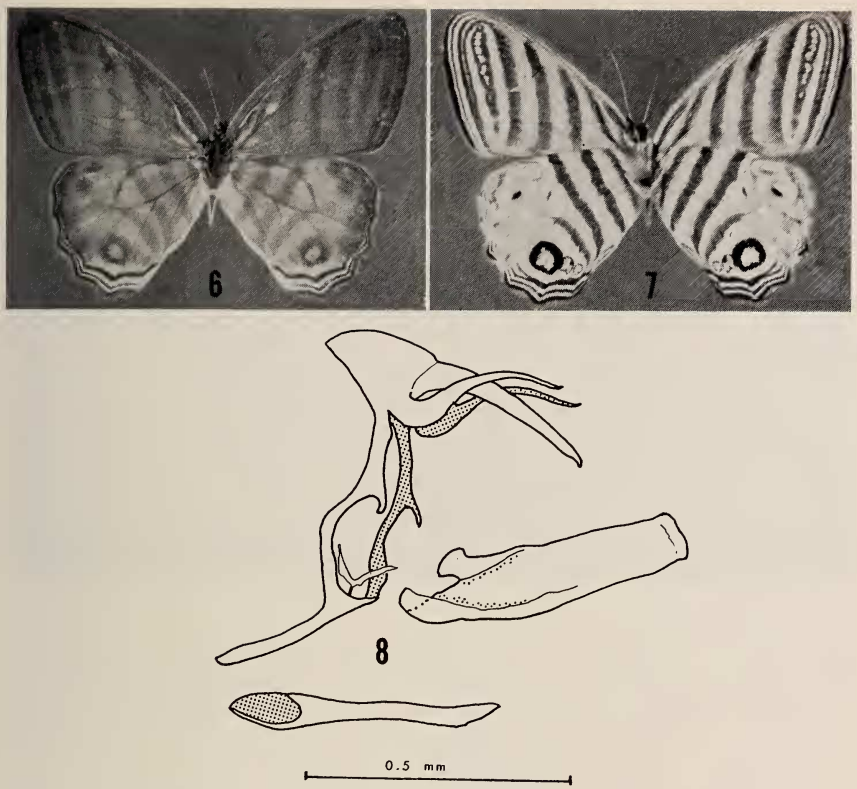
Figs. 9–13

Male: Head, thorax and abdomen clothed with gray-brown dorsal and ochreous-tan ventral hairs. Palpi pale gray laterad and dark gray ventrad and dorsad. Antennae brown dorsad, reddish-brown ventrad; tip of club slightly darker. Legs clothed with gray hairs, but those of tarsi tan.

Wings above dull brown with three dark brown marginal lines separated by tan; otherwise unmarked, but the markings of the under surface showing through vaguely on this surface. Forewings below gray-brown in proximal half, tan in distal half; two thickened rust-brown lines, one across cell, the other just outside cell dividing the gray-brown from the tan ground color; three almost straight dark brown marginal lines; between the marginal lines and the distal band is a row of black-edged silver spots from M_1–M_2 to Cu_2–2A, the whole spotband surrounded by a thin brown ring. Hindwings below with gray-brown proximal and tan distal ground color; thickened rust-brown bands of forewing continued on hindwing; three thin, dark brown marginal lines following the slightly crenulate wing outline; a mesial to submarginal yellow patch from Rs–M_1 to Cu_2–2A encompassing silvered spots in the interspaces, those in Rs–M_1, M_1–M_2 and Cu_1–Cu_2 with well defined black irides; a subsidiary black line between the marginal lines and the yellow patch from Cu_1 to the tornus; along M_3 and Cu_1 are two black submarginal patches. Fringes pale gray above, tan below.

♂ genitalia as figured, differing from those of *S. salvini* (Fig. 8) in many respects, especially the shorter gnathos arms and the simpler valvae.

Length of forewing of Holotype ♂ 17.8 mm, those of the 37 ♂ Paratypes ranging from 16.7 to 18.8 mm, averaging 17.67 mm.



Figs. 6–8. *Splendeuptychia salvini* (Butler). 6–7, ♂ upper (6) and under (7) surfaces; PANAMA: PANAMA: Bayano, nr. Piña (Allyn Mus. photos 010677–11/12); LFW 15.9 mm; G. B. Small, Jr. collection. 8, ♂ genitalia of same specimen; slide M-3418 (Lee D. Miller).

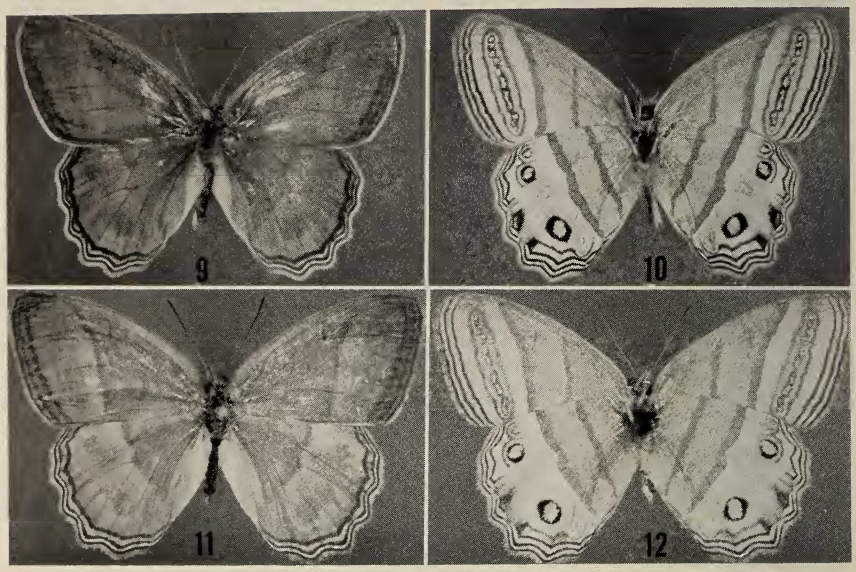
Female: Very similar to the ♂, differing chiefly in size, slightly paler coloration and the more extensive yellow patches of the hindwing under surface.

Lengths of forewings of the 36 ♀ Paratypes range from 17.3 to 21.0 mm, averaging 18.84 mm.

Described from 74 specimens, 38 males and 36 females, from the Mexican states of Tamaulipas and San Luis Potosí.

Holotype ♂: Mexico: Tamaulipas: Gonzalez Ranch, nr. Los Kikos, *ex ovum* on *Bambusa aculeata*, emerged 9.i.1975 (R. O. and C. A. Kendall); chromosome specimen no. 3A-32-M; ♂ genitalia slide M-3651 (Lee D. Miller).

Paratypes: all Mexico. Tamaulipas: same locality as Holotype, 2♂ 1♀ xii.1972, 1♀ vii.1973, 19♂ 13♀ x.1973, 2♂ 2♀ i.1974, 1♂ ii.1974, 3♂ 4♀ xi.1974, 2♂ 1♀ xii.1974, 1♂ 7♀ i.1975, reared from *Bambusa aculeata* (all collected or reared by R. O. and C. A. Kendall or W. W. McGuire). San Luis Potosí: Ciudad Valles, 2♀ vii.1970, 1♂ vii.1972, 3♂ 3♀ vii.1973 (all collected by H. A. Freeman); El Naranjo, 3♂ 1♀ ii.1976 (all collected by R. O. Kendall); Tamazunchale, 1♀ vii.1951 (T. Escalante).



Figs. 9–13. *Splendeuptychia kendalli*, n. sp. 9–10, Holotype ♂ upper (9) and under (10) surfaces; MEXICO: TAMAULIPAS: Gonzalez Ranch, nr. Los Kikos (Allyn Mus. photos 010677–16/17); LFW 17.8 mm. 11–12, Paratype ♀ upper (11) and under (12) surfaces; same locality as Holotype (Allyn Mus. photos 010677–14/15); LFW 19.6 mm. 13, ♂ genitalia of Holotype; slide M-3651 (Lee D. Miller).

Disposition of type-series: Holotype ♂, 10 ♂ and 10 ♀ Paratypes in the collection of the Allyn Museum of Entomology; nine ♂ and 10 ♀ Paratypes returned to R. O. Kendall; 19 ♂ and 15 ♀ Paratypes returned to W. W. McGuire. These series will be divided later among other museum collections.

I take great pleasure in naming this distinctive Mexican satyrid for

Mr. Roy O. Kendall who reared the Holotype and several other examples in the type-series. His work on the life histories of various Mexican, as well as Texan, butterflies has been of the greatest value to lepidopterology and promises even more future benefits to the science.

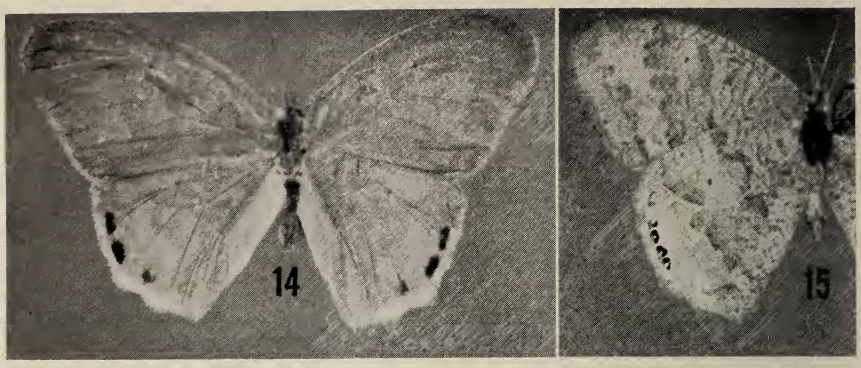
The Tamazunchale specimen came from the Escalante collection and bore a cryptic determination label in an unknown hand identifying the specimen as *S. salvini*. I had previously discounted *salvini* as the name for the Mexican butterfly, and the receipt of true *salvini* confirmed my previous analysis.

The genitalia are somewhat aberrant for members of *Splendeuptychia* (Forster, 1964: figs. 161–164), especially in regard to the aborted gnathos.

In addition to the genitalic dissimilarities between *kendalli* and *salvini*, the former may be distinguished by the following superficial characters: 1) the ground color of *kendalli* is browner, both dorsad and ventrad; 2) the marginal lines on the upper surface are better developed in *kendalli*; 3) the ventral forewing of *salvini* bears four dark bands proximad of the silver spotband, whereas in *kendalli* the basal of these is missing altogether and the distal band is merely a thin line forming part of the ring around the silvered spots; 4) the ventral hindwing of *kendalli* also lacks the basalmost band that is prominent in *salvini*; 5) the yellow patch of the ventral hindwing is more extensive in *kendalli*, whereas in *salvini* this patch is poorly developed to absent posteriad of vein Cu_1; and 6) the silver spotband of the ventral forewing which extends posteriad as far as 2A in *kendalli* reaches no further posteriad than Cu_2 in *salvini*.

This species is apparently restricted to the mesic environments found in a few places in the eastern foothills of the Sierra Madre Oriental. Thus far the butterfly has been found in a very few localities from Tamazunchale north to Tamaulipas where colonies of *B. aculeata* grow. What we know about the bionomics of *S. kendalli* is given in a following paper (Kendall, 1978). Obviously, the insect is multivoltine.

Members of *Splendeuptychia* are almost uniformly rare. I suspect this is a real occurrence, since they are much more attractive than are most Euptychiini. Perhaps the relative abundance of *S. kendalli* and its association with *Bambusa* will make possible the discovery of greater numbers of other species of *Splendeuptychia*. The association of this genus with bamboo is further confirmed by S. S. Nicolay who brought me several specimens of an as yet undetermined *Splendeuptychia* that he took in a bamboo thicket in eastern Ecuador.



Figs. 14–15. *Cyllopsis dospassosi* L. Miller, ♀ upper (14) and under (15) surfaces; MEXICO: SAN LUIS POTOSÍ: El Salto Falls (Allyn Mus. photos 010677–2/3); LFW 17.7 mm; R. O. Kendall collection.

Cyllopsis dospassosi L. Miller, 1969

Figs. 14–15

Cyllopsis dospassosi L. Miller, 1969 ("1968"): 53; 1974: 84–86 (type locality: 52 mi. E Ciudad Victoria, Tamaulipas, Mexico).

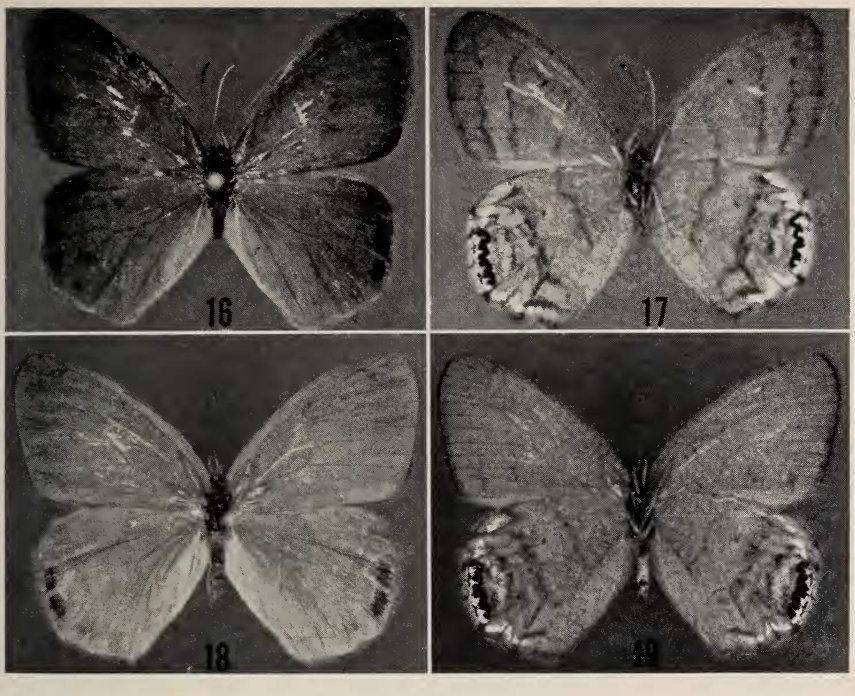
The type of this species remained unique until Mr. and Mrs. Kendall collected one at El Salto Falls, San Luis Potosí on 16.i.1975. This specimen is the second known example of *dospassosi* and, fortunately, is the first female. It is quite comparable to the male, but the ground color of the upper side is slightly darker, and that of the under surface is somewhat less olivaceous. Nevertheless, the maculation of the under surface is comparable to that of the male with the addition of an ochreous outer element to the extradiscal band of the hindwing. The "gray patch" enclosing the ocelli of the ventral hindwing is obscure, as in the male. The length of the forewing is 17.7 mm. I have not done a genitalic dissection of this specimen since the female genitalia are not diagnostic in *Cyllopsis* (L. Miller, 1974: 4).

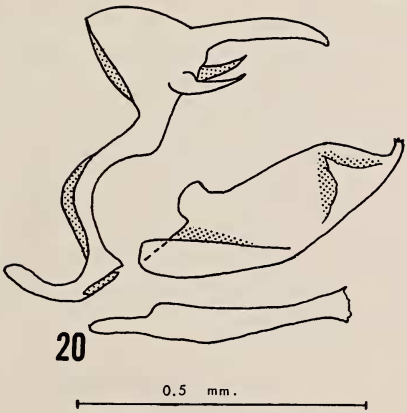
The Kendalls' specimen of this species (which is in their collection) extends the known range of *C. dospassosi* from the Sierra de Tamaulipas to the dry eastern flanks of the Sierra Madre Oriental, presumably of Tamaulipas, as well as San Luis Potosí. The range of *C. dospassosi* may be much wider than previously thought, and its rarity in collections may be attributable to the usual lack of collecting of the smaller Euptychiini.

Cyllopsis wellingi L. Miller, **new species**

Figs. 16–20

Male: Superficially like *C. nayarit* (R. Chermock), but differing in the following particulars: somewhat larger, approaching size of *C. pephredo* (Godman);





Figs. 16–20. *Cyllopsis wellingi*, n. sp. 16–17, Holotype ♂ upper (16) and under (17) surfaces; BRITISH HONDURAS (BELIZE): Cayo District: Pine Ridge, Thousand Foot Falls (Allyn Mus. photos 021777–1/2); LFW 17.3 mm. 18–19, Paratype ♀ upper (18) and under (19) surfaces; same locality as Holotype; (Allyn Mus. photos 021677–1/2); LFW 18.5 mm. 20, ♂ genitalia of Holotype; slide M-3667 (Lee D. Miller).

under surface bands on both wings redder than in either species; transcellular bands of both wings below less well developed than in *nayarit*; ochreous markings of hindwing below much more extensive than in *nayarit* (these are only hinted at in *pephredo*); and ocelli not edged inwardly with ochreous in gray patch area, as in *nayarit*.

♂ genitalia as figured, not at all resembling those of *pephredo*. The genitalia do bear some resemblance to those of *C. pseudopephredo* (R. Chermock) (L. Miller, 1974: fig. 141), a species that is otherwise quite distinct from *wellingi* and other members of the *pephredo* subgroup in its lack of an androconial patch. The valvae of the present species are somewhat broader than those of *pseudopephredo*, but the characteristic inwardly directed teeth (which usually appear as dorsally diverted ones) are very similar.

Length of forewing of Holotype ♂ 17.3 mm, those of the 11 ♂ Paratypes ranging from 17.0 to 18.2 mm, averaging 17.48 mm.

Female: Differs from the ♀ of *C. nayarit* in much the same manner as does the ♂, with the additional characteristic of a reddish flush on the upper surface of some specimens that is not shown in other members of the *pephredo* subgroup.

Lengths of forewings of the eight ♀ Paratypes range from 17.9 to 19.1 mm, averaging 18.45 mm.

Described from 20 specimens, 12 males and eight females, from British Honduras (Belize).

Holotype ♂: BRITISH HONDURAS: Cayo District: Pine Ridge, Thousand Foot Falls, 650 m, 2.ix.1976 (E. C. Welling M); ♂ genitalia slide M-3667 (Lee D. Miller).

Paratypes: all same locality as Holotype, 2–3.ix.1976 (E. C. Welling M.), 11♂ 8♀ (males all determined genitalically).

Disposition of type-series: Entire type-series placed in Allyn Museum of Entomology, but the series may be subdivided later.

It is with great pleasure that I name this little satyrid for Sr. Eduardo C. Welling M. of Mérida, Yucatán, Mexico. He has consistently been available to collect specimens of Euptychiini for me, and has often placed undescribed and unexpected species at our disposal for systematic work.

This species is something of a puzzle. One male of thirteen in front of me was a specimen of *C. pephredo*, but all of the others were the new insect, as demonstrated by genitalic dissections. I have no idea why the single *pephredo* was intermingled with *wellingi* at the type locality of the latter, and this single specimen represents the first record of *pephredo* from British Honduras. These two species now bring the total number of *Cyllopsis* from that country to three (*C. gemma freemani* [Stallings and Turner] also occurs there).

ACKNOWLEDGMENTS

I am most grateful to Messrs. Roy O. Kendall, E. C. Welling M., Gordon B. Small, Jr. and Alberto Diaz F. and Drs. W. W. McGuire and Tarsicio Escalante for providing the material on which this is based. Mr. A. C. Allyn took the photographs used to illustrate the paper. Mr. Allyn and my wife and colleague, Jacqueline, read and suggested upon the paper. To all of these individuals I owe a great debt of gratitude.

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